



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,953	08/02/2006	Michael Roberts	Q96287	5705
23373 7590 11/10/2008				
SUGHRUE MION, PLLC				
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800				
WASHINGTON, DC 20037				
EXAMINER				
MAPA, MICHAEL Y				
ART UNIT		PAPER NUMBER		
2617				
MAIL DATE		DELIVERY MODE		
11/10/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/587,953

Applicant(s)

ROBERTS, MICHAEL

Examiner

Michael Mapa

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 02 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 08/02/06 & 03/22/07 has been considered by the examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah et al. (US Patent Publication 2005/0085254 herein after referenced as Chuah) in view of Yoshii et al. (US Patent Publication 2005/0164740 herein after referenced as Yoshii).

Regarding claim 1, Chuah discloses "An optimization process for radio resources allocated to an MBMS service (Multimedia Broadcast/Multicast Service) broadcast by a source to a group of mobile terminals located in a limited geographic zone that is covered by at least one cellular telecommunication network" (Fig. 4 & Paragraphs [0017] & [0020] of Chuah, wherein Chuah discloses a cellular network with a group of

mobile terminals within coverage of the base station and using MBMS service and increasing cost savings and reducing power requirements). Chuah discloses "characterized in that the optimization process comprises the steps of: counting the mobile terminals present in said geographic zone" (Fig. 3 & Paragraph [0026] of Chuah). Chuah discloses "defining a first criterion representing a minimum level of reception quality by the mobile terminals of the service broadcast in said geographic zone" (Fig. 3 & Paragraph [0024] of Chuah). Chuah discloses "establishing a signalization connection between the cellular telecommunication network and mobile terminals located in a broadcast zone that fulfill the first criteria and transmitting the MBMS service to said mobile terminals" (Fig. 3 & Paragraph [0026] of Chuah).

Chuah fails to disclose "defining a second criterion representing a distance between the broadcast source and the mobile terminals for which a reception of the broadcast service is optimal."

In a related field of endeavor, Yoshii discloses "defining a second criterion representing a distance between the broadcast source and the mobile terminals for which a reception of the broadcast service is optimal" (Paragraph [0008] of Yoshii, wherein Yoshii discloses dividing transmission rates and reception quality hierarchically according to their distances from the base station).

Therefore it would have been obvious for one of ordinary skill in the art to modify the invention of Chuah to incorporate the features and teachings of Yoshii for the purpose of improving the network by providing appropriate quality control over each

mobile station in an MBMS (Paragraph [0006] of Yoshii) and providing services at a high transmission rate and high quality for mobile stations located near the base station and low transmission rate and low quality for mobile stations located farther from the base station and nearer the cell boundary (Paragraph [0008] of Yoshii).

Regarding claim 2, Chuah in view of Yoshii discloses "A process according to claim 1, characterized in that said signalization connection is used to count the mobile terminals of a broadcast zone" (Paragraph [0026] of Chuah).

Regarding claim 3, Chuah in view of Yoshii discloses "The process according to claim 2, characterized in that the process further comprises the steps of: fixing a percentage of mobile terminals that should receive the MBMS service" (Paragraph [0026] of Chuah, wherein Chuah discloses $(N - m)$ users that will be supported by a first transmission scheme and m users that will be supported via a second transmission scheme). Chuah in view of Yoshii discloses "broadcasting signals having a determined power level" (Paragraph [0023] of Chuah, wherein Chuah discloses broadcasting to all multicast users within a given cell coverage area). Chuah in view of Yoshii discloses "determining the percentage of mobile terminals that respond to signals that have been broadcast" (Paragraph [0024] of Chuah). Chuah in view of Yoshii discloses "as long as a fixed percentage of mobile terminals has not been reached, reducing an emission power level; and if the fixed percentage of mobile terminals has been reached, broadcasting the MBMS service at the emission power level that has been reached" (Paragraph [0026] of Chuah, wherein Chuah discloses $N-m$ users (fixed percentage of mobile terminals) using a first transmission scheme and m users using a second

transmission scheme. The first transmission scheme broadcast is less than the initial broadcast to all multicast users within the cell coverage area, therefore a reduction of emission power level).

Regarding claim 4, Chuah in view of Yoshii discloses "The process according to claim 1, characterized in that said cellular telecommunication network is a UMTS network" (Paragraph [0020] of Chuah, wherein Chuah discloses UTRAN (UMTS Radio Access Network)).

Regarding claim 5, Chuah in view of Yoshii discloses "The process according to claim 4, characterized in that the first criterion that represents the minimum level of reception quality is determined according to a minimum level of received signal code power (RSCP) measured by code indicated by said cellular telecommunication network" (Paragraph [0023] of Chuah, wherein Chuah discloses measuring the received pilot signal power).

Regarding claim 6, Chuah in view of Yoshii discloses "The process according to claim 4, characterized in that the first criterion that represents the minimum level of reception quality is determined according to a signal-to-noise ratio E_c/N_0 that is indicated by said cellular telecommunication network" (Paragraph [0022] of Chuah, wherein Chuah discloses the broadcast threshold to be a ratio of the signal power to the interference power and noise density).

Regarding claim 9, Chuah discloses "A mobile terminal aimed at receiving an MBMS service broadcast by a source in a limited geographic zone that is covered by at least one cellular telecommunication network" (Fig. 4 & Paragraph [0020] of Chuah,

wherein Chuah discloses a cellular network with a group of mobile terminals within coverage of the base station and using MBMS services). Chuah discloses "the mobile terminal comprises: means for establishing connections with said cellular telecommunication network in the cases:

in which a reception quality level is below a minimum level defined by said cellular telecommunication network for said zone" (Fig. 3 & Paragraphs [0024] & [0026] of Chuah, wherein Chuah discloses determining the number of users below the established broadcast threshold and using separate transmission schemes for users below the established threshold).

Chuah fails to disclose "the mobile terminal comprises: means for establishing connections with said cellular telecommunication network in the cases: in which a distance between the mobile terminal and the broadcast source is greater than a distance established in advance by said cellular telecommunication network."

In a related field of endeavor, Yoshii discloses "the mobile terminal comprises: means for establishing connections with said cellular telecommunication network in the cases: in which a distance between the mobile terminal and the broadcast source is greater than a distance established in advance by said cellular telecommunication network" (Paragraph [0008] of Yoshii, wherein Yoshii discloses dividing transmission rates and reception quality hierarchically according to their distances from the base station).

Therefore it would have been obvious for one of ordinary skill in the art to modify the invention of Chuah to incorporate the features and teachings of Yoshii for the purpose of improving the network by providing appropriate quality control over each mobile station in an MBMS (Paragraph [0006] of Yoshii) and providing services at a high transmission rate and high quality for mobile stations located near the base station and low transmission rate and low quality for mobile stations located farther from the base station and nearer the cell boundary (Paragraph [0008] of Yoshii).

Regarding claim 10, Chuah in view of Yoshii discloses "The mobile terminal according to claim 9, characterized in that the mobile terminal establishes a connection with said cellular telecommunication network when a signal-to-noise E_c/N_0 is lower than a level that has been set in advance by said cellular telecommunication network" (Fig. 3 & Paragraphs [0022], [0024] & [0026] of Chuah, wherein Chuah discloses the broadcast threshold to be a ratio of the signal power to the interference power and noise density, and continues to disclose determining the users below the broadcast threshold and using a second transmission scheme for the users below the broadcast threshold).

4. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah et al. (US Patent Publication 2005/0085254 herein after referenced as Chuah) in view of Yoshii et al. (US Patent Publication 2005/0164740 herein after referenced as Yoshii) and further in view of Lee et al. (US Patent Publication 2004/0146041 herein after referenced as Lee).

Regarding claim 7, Chuah in view of Yoshii discloses "The process according to claim 1." Chuah in view of Yoshii fails to disclose "that the said cellular telecommunication network is a GSM/GPRS network."

In a related field of endeavor, Lee discloses "that the said cellular telecommunication network is a GSM/GPRS network" (Paragraph [0005] of Lee, wherein Lee discloses the UMTS as having been evolved from GSM and is used as the European Standard).

Therefore it would have been obvious for one of ordinary skill in the art to modify the invention of Chuah in view of Yoshii to incorporate the teachings of Lee of having a GSM standard for the purpose of increasing marketability by conforming to known standards.

Regarding claim 8, Chuah in view of Yoshii and further in view of Lee discloses "The process according to claim 7, characterized in that the first criterion that represents the minimum level of reception quality is determined according to a parameter (RX lev GSM)" (Paragraph [0023] of Chuah, wherein Chuah discloses measuring the received signal power).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Mapa whose telephone number is (571)270-5540. The examiner can normally be reached on MONDAY TO THURSDAY 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Mapa/
Examiner, Art Unit 2617

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617